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ABSTRACT

A popular school project being undertaken around the country today is the amateur-built airplane. Many schools have already finished their first airplane and are working on their second. A list of some of these schools is provided. Interest in these programs has risen greatly among both students and teachers along with grades, attendance, performance, and general attitude. The aviation subject matter seems to be a lift from the routine of normal classroom learning and allows total school involvement. Setting up a project of this type entails considerable planning but with great reward. The purpose of this circular is to provide schools with a source of advisement, contacts, inspectors, previous builders, and resources for teaching aides, the outcome of which can help attain the basic educational goal of building an airplane. (DS)

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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

U.S. DEPARTMENT OF HEALTH
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SUBJECT: AVIATION EDUCATION THROUGH BUILDING AN AIRPLANE

1. PURPOSE. The objective of this advisory circular is to provide information to high schools about the available assistance, resources, methods, and opportunities for attaining basic educational goals by building an airplane.

2. BACKGROUND. Many schools throughout the country have already completed their first amateur-built airplane and are now on their second. Student and teacher enthusiasm is running high. Student interest in school work has taken an upward swing, and so have grades, performance, attendance, and general attitude.

HOW COME? The answer is very simple - those schools are substituting aviation-related subject matter for previously unrelated, stodgy, dry classroom situations. Those schools are teaching science concepts connected with the aerodynamics of flight and flight surfaces by means of lectures, demonstrations, blackboard discussions, and shop projects--including the construction of an airplane.

This part of the program is usually conducted by science teachers and industrial arts teachers. Mathematics teachers become involved by introducing shop-related math; the solution of simple problems in determining

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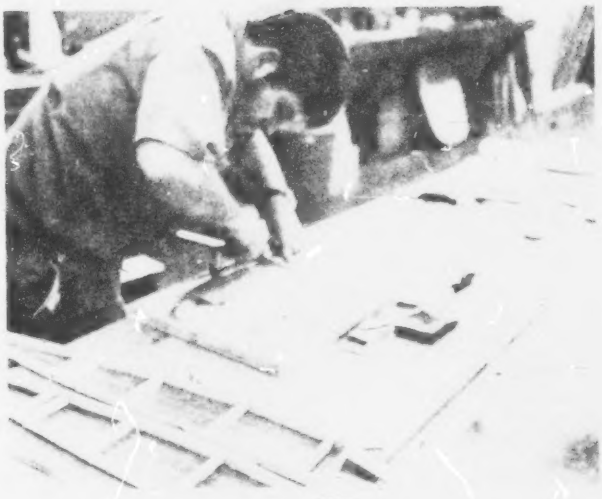
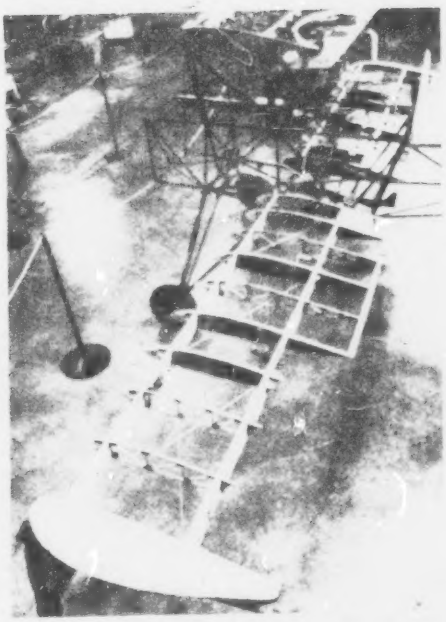
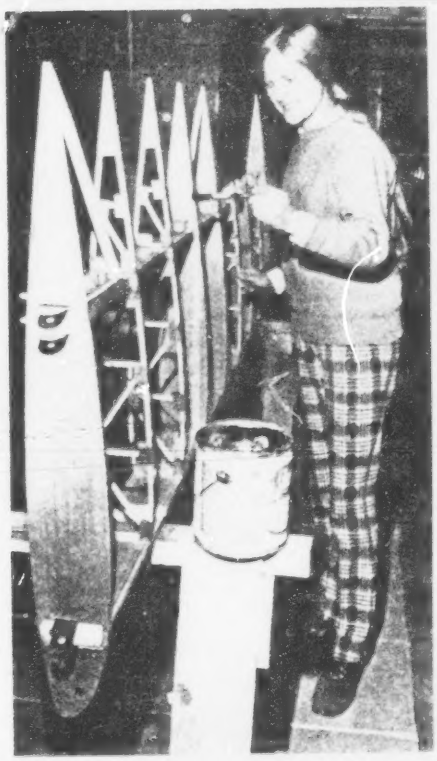
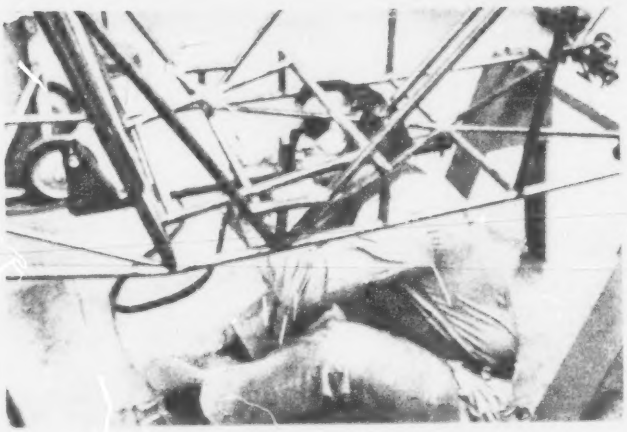








-- Photographs courtesy of Experimental Aircraft Association.

fuel and oil capacity, weight and balance, wing loading, etc. English teachers devote time to increasing the students' vocabulary by using aviation terms in oral communications and in composition assignments.

Aircraft construction projects are within the normal scope of a modern school's curriculum and provide educational program enrichment in many subject areas or disciplines. For example, many teachers use an interdisciplinary instructional approach by emphasizing the social-studies implications of aviation related topics and problems. This type of educational approach often leads logically to discussions and studies of the availability of air and other forms of transportation in proximity to the school. Another important benefit is learning about various careers in aviation and related construction fields.

3. WHAT TO BUILD. Administrators, curriculum planners or writers, teachers, or students, who are considering building an airplane as part of an ongoing curriculum, should select a specific model for construction. Instead of a ready made "do-it-yourself" kit, the students should be required to utilize their knowledge of mathematics, science, shop techniques, wood-working, metal, fabrication, etc. Any high school contemplating building an airplane should contact the Experimental Aircraft Association for construction plans.

-- Photograph courtesy of Experimental Aircraft Association.

The accompanying picture illustrates one type of airplane that may be built from EAA plans and blueprints. Sufficient copies of the plans should be purchased so that as many students as possible could have a set of working plans at any time. Funds for purchase of the plans may be available from community or private sources.

4. WHERE TO FIND HELP. Any school administrator or teacher who is planning to initiate an airplane building project in a high school will find that various sources of assistance and information are available.

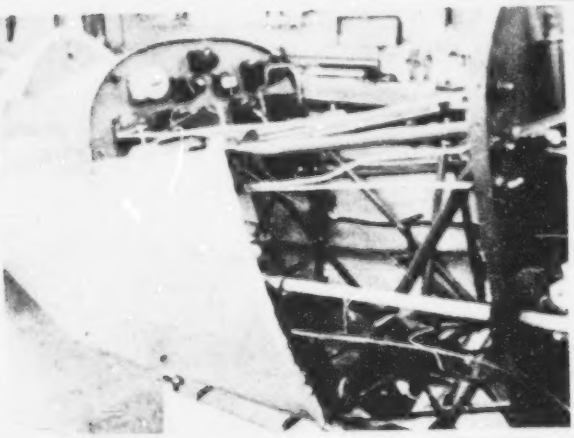
Assistance in the planning, fabrication, and construction of a flyable airplane is available from the FAA, many of the State aeronautics commissions, private organizations, and any of the high schools that have either started or completed building their first airplane. Additionally, assistance may be obtained from any of the FAA certificated aviation maintenance technician schools (see appendix 1 for names and addresses).

a. Supervision and inspection of amateur-built aircraft. No person may legally fly an airplane without the prior approval of the FAA Administrator. What this means then is that all pilots and all airplanes, including amateur-built aircraft, must be certificated. Two primary offices within the FAA are delegated the authority to supervise, inspect, and enforce applicable policy and regulations pertaining to amateur aircraft builder activities:

(1) Engineering and Manufacturing District Offices (EMDOs) - see appendix 2 for locations.

(2) General Aviation District Offices (GADOs) - see appendix 3 for locations.

FAA inspectors, in coordination with the amateur-builders, should establish a planned program which includes an inspection schedule or other suitable arrangements for inspecting the airplane during the various stages of construction so that critical areas will not be permanently covered or closed before they have been inspected for workmanship, condition, and safety. Amateur builders should arrange to keep suitable records of inspections, tests, and related findings of any areas or components inspected by the FAA.



-- Photograph courtesy of Experimental Aircraft Association.

Usually an EMDO inspector will approve the amateur-built airplane for its initial test flight and issue the initial airworthiness certificate.

b. The Experimental Aircraft Association (EAA) is an international non-profit organization of amateur aircraft builders, engineers, and sport plane enthusiasts. With more than 400 chapters in the United States, and representation in more than 50 countries throughout the world, the EAA membership has devoted thousands of hours to guiding and assisting amateur builders. Anyone considering building an airplane should seek the services, guidance, and assistance of any of the EAA chapters. Inquiries may be addressed to the parent organization:

Experimental Aircraft Association
P.O. Box 229
Hales Corners, Wisconsin 53130

c. Many of the States have a State aeronautics commission staffed with experienced technical advisors qualified in various aspects of aviation education including amateur aircraft construction requirements. These aeronautic commissions are usually located at the State Capitol. See appendix 4 for the addresses of the various State aeronautics departments or commissions.

d. An organization within the educational community that secondary school administrators and teachers may turn to for assistance is the:

American Industrial Arts Association
1201 16th Street, N.W.
Washington, D.C. 20036

The Association will provide information on schools with aviation programs and provide advice ranging from curriculum to suggestions for developing community support for an aircraft construction project.

e. Previous builders of amateur-built aircraft could be contacted for advice; or, perhaps, for copies of plans for aircraft they have built. One such contact is La Mar Steen, 3218 South Cherry Street, Denver, Colorado 80222. Mr. Steen put together plans so that other amateur builders may duplicate the Steen Skybolt.

A number of high schools and vocational schools that have successfully completed aircraft building projects are:

Parkside High School Jackson, Michigan	Bay View High School Milwaukee, Wisconsin	St. Rita's High School Chicago, Illinois
Manual High School Denver, Colorado	Aviation High School Long Island City, N.Y.	Dean Morgan Jr. High Casper, Wyoming

Delano Joint Union High School Delano, Colorado	Santana High School Santee, California	Valley City High School Valley City, N. Dakota
Beloit High School Beloit, Wisconsin	Norwich Sr. High School Norwich, New York	J. Mills School Elwood Park, Illinois

5. OTHER AIDS. A unique aviation education film, "The Wind Is Right," centers around the construction of a flyable aircraft by high school industrial arts students. The film was produced by and is available from the Aviation Distributors and Manufacturers Association, 1900 Arch Street, Philadelphia, Pennsylvania 19102.

A single copy of "The Wind Is Right" may be borrowed from the FAA by writing to: U.S. Department of Transportation, Federal Aviation Administration, Film Library, AAC 44.5, P.O. Box 25082, Oklahoma City, Oklahoma 73125.

All loans are made for a minimum period of one week unless permission is otherwise obtained. To expedite requests for the film, provide the following information:

(1) Film Title: "The Wind Is Right"
(2) FAA Film No.: FAC-135
(3) Complete address where film is to be shipped.
(4) First and alternate choice of show dates.

6. FEDERAL AVIATION REGULATIONS AND REFERENCE MATERIALS. Federal Aviation Regulations are available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

We recommend the following volumes:

Volume I	Part 1, Definitions and Abbreviations ($1.50 for domestic order, $2.00 for foreign)
Volume II	Part 21, Certification Procedures For Products And Parts; Part 45, Identification And Registration Marking; Part 47, Aircraft Registration ($8.00 domestic, $10.00 foreign)
Volume VI	Part 91, General Operating and Flight Rules ($5.50 domestic, $6.75 foreign).
Volume IX	Part 61, Certification: Pilots and Flight Instructors; Part 65, Certification: Flight Crew Members Other Than Pilots ($6.00 domestic, $7.50 foreign)

Following is a select list of pertinent FAA Advisory Circulars. The FAA issues advisory circulars to inform the aviation public of nonregulatory material of interest. (If a price is listed after the description of the advisory circular, it means the circular is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. If no price is listed, then the circular is distributed free of charge by the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590. Please order advisory circulars accordingly.)

Advisory Circular 20-27B, Certification and Operation of Amateur-Built Aircraft (4-20-72). Provides information and guidance material for amateur aircraft builders.

Advisory Circular 20-28A, Nationally Advertised Aircraft Construction Kits, Amateur-Built Aircraft (12-29-72). Explains that using certain kits could render the aircraft ineligible for the issuance of an experimental certificate as an amateur-built aircraft.

Advisory Circular 43.13-1A, Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair (1972). Contains methods, techniques, and practices acceptable to the Administrator for the inspection and repair of civil aircraft. ($3.70)

Advisory Circular 43.13-2, Acceptable Methods, Techniques, and Practices - Aircraft Alterations (1966). Contains methods, techniques, and practices acceptable to the Administrator in altering civil aircraft.($2)

Advisory Circular 65-9, Airframe and Powerplant Mechanic General Handbook (1970). Provides basic information on principles, fundamentals, and technical procedures common to both airframe and powerplant mechanics. ($6)

Advisory Circular 65-12, Airframe and Powerplant Mechanic Powerplant Handbook (1970). Provides basic information on the construction. theory of operation, and maintenance of aircraft powerplants. ($3.75)

Advisory Circular 65-15, Airframe and Powerplant Mechanics Airframe Handbook (1972). Provides basic information on airframe construction features, assembly and rigging, fabric covering, painting and finishing, structural repairs, welding, and airframe systems. ($4)

In addition to government publications there are many commercial texts available from various publishers that provide useful reference material for the amateur aircraft builders. The EAA has a "How To" series of publications designed as self-education texts for the amateur builder. This series includes such subjects as wood, sheet metal, welding, aircraft building tips, dope and fabric, and hand tools. Write to the EAA and request a complete listing of their "How To" series, including cost.

7. WHERE DO YOU BUY SUPPLIES AND EQUIPMENT? If this is your first attempt at amateur-aircraft building, a good source of information is the FAA Engineering and Manufacturing District Office or the General Aviation District Office. Another source of information will be found in the advertising in monthly aviation magazines. And, once again, the EAA is another source for lists of supplies and suppliers. Or, any of the high schools that have built an airplane will gladly share the names and addresses of their suppliers.

8. QUESTIONS AND ANSWERS. The most frequently asked questions about amateur-built aircraft are outlined below, and their applicable answers provide some basic information for schools interested in constructing an airplane.

Ques: How long does it take to complete an amateur-built aircraft?

Ans: This varies with the size group; experience indicates that construction will extend beyond one school year.

Ques: Are there any manuals for the amateur aircraft builder that provide step-by-step basic information and guidance?

Ans: Yes. EAA "How To" manuals are one such source of information.

Ques: To be eligible as an amateur-built aircraft, in whose name should the airplane be registered--the student builders? the teacher? the school? or the person who provided the necessary funds?

Ans: The airplane should be registered in the name of the school or the teacher.

Ques: In what category will the aircraft be certificated (licensed)?

Ans: Experimental (home-built).

Ques: What is the significance of the experimental category?

Ans: The experimental category includes the amateur-built or home-built aircraft that are built for educational and recreational purposes.

Ques: When does the amateur-built aircraft have to be inspected?

Ans: The aircraft must be inspected prior to covering and prior to the test flight. However, there are some components that must be inspected before assembly because they become inaccessible when installed in the aircraft.

Ques: If any difficulties or problems arise during the construction, where can we get help?

Ans: Help and assistance is as close as your telephone. Feel free to call the FAA inspector at any time. In addition you can contact the EAA chapter in your area or communicate with EAA headquarters.

Ques: Can we build the entire airplane from a do-it-yourself kit?

Ans: There are many kits of materials that are acceptable to FAA as a basis for assembling and fabricating the major portions of an airplane. However, a kit of prefabricated parts that allows only for the "erector set" type of assembly is not acceptable. FAA Advisory Circular 20-28A speaks to this subject in more detail.

Ques: What special skills are needed to build an airplane?

Ans: Basic manipulative skills with hand tools are all that one needs in the construction of an amateur-built airplane.

Ques: What tools are required?

Ans: A good assortment of basic tools is required; saws, drills, files, mallets, wrenches, electric drill, drill press, bench grinder, band saw, belt and disc sanders, table saw, etc. A welding torch should be available.

Ques: Is a hangar necessary for the construction?

Ans: No. A high school industrial arts shop is sufficient. Final assembly of components could be done out-of-doors.

9. SUMMARY. There is no part of an airplane that cannot be fabricated with the tools normally found in a high school shop, nor a part which requires a function beyond the abilities of most high school students. An airplane building project can become a part of an industrial arts course, or a general science course. What could be more motivating, more relevant, more practical, than teaching aviation education through an application of basic skills and personal experiences?

C. R. Melugin Jr.

C. R. MELUGIN, JR.
Acting Director, Flight Standards Service

APPENDIX 1. AVIATION MAINTENANCE TECHNICIAN SCHOOLS

ALABAMA

Ala. Inst. of Aviation Tech.
1439 So. Union Ave.
Ozark, Al. 36360

Sch. of Aviation Technology
Marion County Airport
Hamilton, Al. 35570

ALASKA

Anchorage Community College,
Division of University of Alaska
Aviation Maintenance Technician
School
[illegible] East 5th Avenue
Anchorage, Ak. 99502

North Star Borough School
of Aviation
1505 Gillam Way
Fairbanks, Ak. 99701

ARIZONA

Cochise College
Drawer L
Douglas, Az. 85607

Phoenix Union High School
512 E. Van Buren St.
Phoenix, Az. 85004

ARKANSAS

Southwest Tech. Institute
Camden, Ar. 71070

CALIFORNIA

California State University
San Jose, Ca. 95112

College of Alameda
P.O. Box 2564, Airport Stn.
Oakland, Ca. 94614

Chaffey College
5885 Haven Avenue
Alta Loma, Ca. 91701

Delmel Vocational Institute
P.O. Box 400
Tracy, Ca. 95376

Fresno City College
1101 University Avenue
Fresno, Ca. 93704

Gavilan College
2310 San Felipe Rd.
Hollister, Ca. 95023

Glendale College
1500 No. Verdugo Rd.
Glendale, Ca. 91208

John A. O'Connell Vocational
High School and Tech. Inst.
21st & Harrison St.
San Francisco, Ca. 94110

Long Beach City College
Business and Technical Div.
1305 E. Pacific Coast Hwy.
Long Beach, Ca. 90806

Los Angeles Trade Tech. Col.
9700 So. Sepulveda Blvd.
Los Angeles, Ca. 90045

Mt. San Antonio College
1100 N. Grand Ave.
Walnut, Ca. 91789

Northrop Institute of Tech.
1155 W. Arbor Vitae St.
Inglewood, Ca. 90301

Orange Coast College
2701 Fairview Rd.
Costa Mesa, Ca. 92626

Palo Alto Unified School Dist.
50 Embarcadero Rd.
Palo Alto, Ca. 94301

Reedley College
Manning and Reed Avenues
P.O. Box 552
Reedley, Ca. 93654

Sacramento City College
3835 Freeport Blvd.
Sacramento, Ca. 95822

San Bernardino Valley College
701 So. Mt. Vernon Ave.
San Bernardino, Ca. 92410

San Diego City College
Miramar Campus
10440 Black Mountain Rd.
San Diego, Ca. 92126

San Francisco Int'l Arpt. Sch.
San Francisco Int'l Airport
San Francisco, Ca. 91328

College of San Mateo
1700 W. Hillsdale Blvd.
San Mateo, Ca. 94402

Shasta College
1603 N. Old Oregon Trail
Redding, Ca. 96001

Skyline College
3300 College Drive
San Mateo, Ca. 94066

Victor Valley Community College
18422 Beat Valley Rd.
Victorville, Ca. 92392

COLORADO

Colorado Aero Tech., Inc.
10851 W. 120th Avenue
Broomfield, Co. 80020

Emily Griffity Opportunity Sch.
8301 Montview Blvd.
Denver, Co. 80020

CONNECTICUT

Harvard H. Ellis Regional
Vocational Tech. School
Maple St., P.O. Box 149
Danielson, Ct. 06239

DISTRICT OF COLUMBIA

Washington Technical Institute
Washington National Airport
Hangar 10
Washington, D.C. 20001

FLORIDA

George T. Baker Aviation Sch.
3275 NW 42nd Ave.
Miami, Fl. 33142

Bay Air Tech. School, Inc.
Albert Whitted Arpt., Hgr. 1
St. Petersburg, Fl. 33701

Embry-Riddle Aero University
Daytona Beach Municipal Arpt.
P.O. Box 2411
Daytona Beach, Fl. 32016

Lake City Community College
Lake City, Fl. 32055

Lewis M. Lively Area
Vocational & Tech. School
500 N. Appleyard Dr.
Tallahassee, Fl. 32304

Florida Academy of Aero.
Tech., Inc.
Airport Br. Post Office
St. Petersburg, Fl. 33732

GEORGIA

Atlanta Area Tech. School
1560 Steward Ave., SW
Atlanta, Ga. 30310

South Ga. Tech. & Voc. School
P.O. Box 1088
Americus, Ga 31709

HAWAII

Honolulu Community College
AVMAT
402 Aokea Place
Honolulu, Ha. 96819

IDAHO

Ricks College
Rexburg, Id. 83440

School of Trade and Tech. Ed.
Idaho State University
Pocatello Municipal Airport
Pocatello, Id. 83201

ILLINOIS

Belleville Area College
Bi-State Parks Airport
1400 Upper Cahokia Rd.
Cahokia, Il. 62206

Board of Ed.-City of Chicago
228 N. LaSalle St.
Chicago, Il. 60604

Lewis College Aviation
Maintenance Department
Route 53
Lockport, Il. 60441

Parks College of Aero.Tech.
of St. Louis University
Parks Airport
E. St. Louis, Il. 62201

Rock Valley College, Aviation
Maintenance Technology
6349 Falcon Rd.
Rockford, Il. 61109

Southern Ill. Univ. Avn. Tech.
Southern Illinois Airport
Carbondale, Il. 62901

University of Illinois
Institute of Aviation
Univ. of Ill. Willard Airport
Savoy, Il. 61874

INDIANA

Purdue University
Department of Aviation Tech.
Lafayette, In. 47907

Vincennes University
Aviation Maintenance Tech.
1002 N. First St.
Vincennes, In. 47591

IOWA

Des Moines Technical School
1800 Grand Ave.
Des Moines, Ia. 50307

Hawkeye Institute of Tech.
Merged Area (Education) VII
1501 E. Orange Rd.
P.O. Box 8015
Waterloo, Iowa 50704

Inuian Hills Community College
Iowa Tech. Campus
Ottumwa Industrial Airport
Ottumwa, Ia. 52501

Iowa Western Community College
2700 College Road
Council Bluffs, Ia. 51501

KANSAS

Kansas Technical Institute
Dept. of Aeronautical Tech.
Salina, Ks. 67401

Salina Area Voc. Tech. Sch.
Building 658
Salina Arpt. Indus. Center
Salina, Ks. 67401

Wichita Area Voc. Tech. School
301 S. Grove
Wichita, Ks. 67211

Wilson Aero Space Trng. Ctr.
3150 Fairfax Rd.
Kansas City, Ks. 66115

KENTUCKY

Somerset Vocational Annex
Route 2, Box 521A
Somerset, Ky. 42501

LOUISIANA

Isaac Delgado College
615 City Park Ave.
New Orleans, La. 70119

Sowela Technical Institute
501 Broad St.
Lake Charles, La. 70601

MAINE

Air-Tech, Incorporated
16 Central Ave.
Limerick, Me. 04048

MASSACHUSETTS

E. Coast Aero-Tech. Sch., Inc.
P.O. Box 412
Lexington, Ma. 02173

Wentworth Institute
550 Huntington Ave.
Boston, Ma. 02115

MICHIGAN

Aero Mechanics School
10200 Erwin
Detroit, Mi. 48234

Detroit Inst. of Aeronautics
Willow Run Airport
Ypsilanti, Mi. 48197

Montcalm Community College
Sidney, Mi. 48885

Kirtland Community College
Route 4, Box 59A
Roscommon, Mi. 48653

Southwestern Michigan College
Dept. of Applied Sciences
Cherry Grove Rd.
Dowagiac, Mi. 49047

Western Michigan University
Transportation Tech. Dept.
Kalamazoo, Mi. 49001

MINNESOTA

Area Technical-Vocational Sch.
Thief River Falls, Mn. 56701

Minneapolis Area Voc. Tech.
Inst., Aviation Trng. Ctr.
5810 34th Ave. So.
Minneapolis, Mn. 55417

Skyline School of Aviation
Maintenance, Inc.
5944 28th Ave. So.
Minneapolis, Mn. 55417

Winona Area Tech. School
1250 Homer Road
Winona, Mn. 55942

MISSISSIPPI

Golden Triangle Voc-Tech.
Ctr., Aviation Facility
P.O. Box 789
Columbus, Ms. 39701

Hinds Junior College
John Bell Williams Airport
Raymond, Ms. 39154

MISSOURI

Atlantic School, Inc. d/b/a *
Aero Mechanics School, Inc.
838 Richards Road
Municipal Airport
Kansas City, Mo. 64116

Fort Osage Area Voc-Tech Sch.
Route 2, Box 928
Independence, Mo. 64056

Hiller Air & Space Acad., Inc.
3051/53/55 SW Blvd.
Kansas City, Mo. 64108

Linn Technical College
Linn, Mo. 65051

Maple Woods Community College
2601 NE Barry Road
Kansas City No., Mo. 64156

Midco Aviation School Corp.
d/b/a Mid-Continent Aviation
School of Aeronautics
1441 Atlantic Ave.
Kansas City No., Mo. 64116

MONTANA

Aero Division, Helena
Voc.-Tech. Center
1115 Roberts
Helena, Mt. 59601

NEBRASKA

Western Nebraska Technical
College
Sidney, Ne. 69162

NEVADA

Southern Nevada Vocational
Technical Center
2832 E. Flamingo Rd.
Las Vegas, Nv. 89109

NEW JERSEY

Teterboro Sch. of Aero., Inc.
80 Moonachie Avenue
Teterboro Airport
Moonachie, N.J. 07074

NEW MEXICO

Eastern New Mexico University
P.O. Box 6761
Roswell, N.M. 88202

NEW YORK

Academy of Aeronautics
La Guardia Field
Flushing, N.Y. 11757

Aviation High School
Queens Blvd. & 35th St.
Long Island City, N.Y. 11101

Burgard Vocational High School
400 Kensington Ave.
Buffalo, N.Y. 14214

East N.Y. Voc & Tech School
Fountain Ave. & Wells St.
Brooklyn, N.Y. 11208

Riverside Sch. of Aeronautics
Riverside Airport
P.O. Box 444
Utica, N.Y. 13503

Lewis A. Wilson Technological
Center
Grand Boulevard & Lucon Dr.
Deer Park, N.Y. 11729

NORTH CAROLINA

Peidmont Aerospace Institute
Smith Reynolds Airport
Winston-Salem, N.C. 27102

Wayne Community College
P.O. Drawer 1878
Goldsboro, N.C. 27530

NORTH DAKOTA

Kundert Aviation Voc. Sch.
Box 5534, S.U. Station
Hector Field
Fargo, N.D. 58102

OHIO

Cincinnati Technical College
3520 Central Parkway
Cincinnati, Oh. 45223

Columbus Technical Institute
550 E. Spring St.
Columbus, Oh. 43215

Macomber Voc.Tech. High School
1501 Monroe St.
Toledo, Oh. 43624

Montgomery County Joint
Vocational School
6800 Hoke Rd.
Clayton, Oh. 45315

OKLAHOMA

Aeronautical Technology
The Technical Institute
Oklahoma State University
Stillwater, Ok. 74074

O.T. Autry Area Voc.Tech. Ctr.
1201 West Willow St.
Enid, Ok. 73701

Oklahoma City Voc.Tech. Ctr.
4901 S. Bryant
Oklahoma City, Ok. 73121

Spartan School of Aero., Inc.
8820 E. Pine St.
P.O. Box 51239
Tulsa, Ok. 74151

* d/b/a = "doing business as"

OREGON

Lane Community College
4000 E. 30th Ave.
Eugene, Or. 97405

Portland Community College
12000 SW 49th Ave.
Portland, Or. 97219

PENNSYLVANIA

Pittsburgh Institute of Aero
Allegheny County Airport
P.O. Box 10897
Pittsburgh, Pa. 15236

Quaker City School of Aero.
2583-69 Grays Ferry Ave.
Philadelphia, Pa. 19146

Upper Bucks County Area
Vocational Technical School
Star Route
Perkasie, Pa. 18944

Williamsport Area Community
College
1005 West Third St.
Williamsport, Pa. 17701

SOUTH CAROLINA

Florence-Darlington Technical
Education Center
P.O. Box 384
Florence, S.C. 29501

SOUTH DAKOTA

Lake Area Voc. Tech. School
Aviation Mechanics Dept.
Watertown, S.D. 57201

TENNESSEE

Memphis Area Voc Tech. Sch.
Aviation Division
2752 Winchester Rd.
Memphis, Tn. 38116

Moody Aviation, d/b/a
Moody Bible Institute of
Chicago
Box 429
Elizabethton, Tn. 37643

TEXAS

Aero Technical Institute
Municipal Airport
P.O. Box 1916
Wichita Falls, Tx. 73307

Hallmark Aero-Tech.
4234 Roosevelt Ave.
San Antonio, Tx. 78214

LeTourneau College, Dept.
of Aero. Tech.
2300 S. Mobberly Ave.
Longview, Tx. 75601

Tarrant Co. Jr. College Dist.
P.O. Box 4526, Stockyards Stn.
Fort Worth, Tx. 76119

Texas State Technical Institute
Aviation Maintenance Dept.
James Connally Campus
Waco, Tx. 76705

Texas State Technical Institute
Mid-Continent Campus
P.O. Box 4228
Amarillo, Tx. 79105

UTAH

Dixie College
St. George, Ut. 84770

Utah State University of
Agriculture & Applied Sciences
College Hill, Aero. Dept.
Logan, Ut. 84321

WASHINGTON

Big Bend Community College
Bldg. 4103, North Campus
Grant County Airport
Moses Lake, Wa. 98837

Clover Park Voc. Tech. School
4500 Steilacoom Blvd., SW
Lakewood Center, Wa. 98499

Everett Community College
Bldg. 512, Paine Field
Everett, Wa. 98201

Seattle Community College
Aircraft Branch
6770 E. Marginal Way So.
Seattle, Wa. 98108

Spokane Community College
E. 3403 Mission Ave.
Spokane, Wa. 99202

WISCONSIN

Blackhawk Technical Center
228 Center Avenue
Janesville, Wi. 53545

Gateway Technical Institute
3520 30th Avenue
Kenosha, Wi. 53140

Milwaukee Area Tech. College
1015 North Sixth St.
Milwaukee, Wi. 53203

WYOMING

Cannon Aeronautical School
P.O. Box 7553
Cheyenne, Wy. 82001

APPENDIX 2. ENGINEERING AND MANUFACTURING DISTRICT OFFICES

Alabama
P.O. Box 5196
Fulton Road Station
Mobile, Alabama 36615

California
5885 West Imperial Hwy.
P.O. Box 45018
Los Angeles, California 90045

2815 East Spring Street
Long Beach, California 90806

7200 N. Vineland Avenue
Sun Valley, California 91352

Colorado
Park Hill Station
P.O. Box 7213
Denver, Colorado 80207

Connecticut
1209 John Finch Blvd., Rte. 5
South Windsor, Connecticut 06074

Florida
P.O. Box 2014
Miami, Florida 33159

P.O. Box 578
Vero Beach, Florida 32960

Georgia
1568 Willingham Drive
Suite "C", Room 207
College Park, Georgia 30337

Box 13457
Oglethorpe Branch
Savannah, Georgia 31406

Illinois
2300 East Devon Avenue
Des Plaines, Illinois 60018

Indiana
FAA Building #1
Municipal Airport
Indianapolis, Indiana 46241

Kansas
Flight Standards Building
Municipal Airport
Wichita, Kansas 67209

Administration Building
Fairfax Airport
Kansas City, Kansas 66115

Michigan
Westgate Medical Tower
750 West Sherman Boulevard
Muskegon, Michigan 49441

New Jersey
510 Industrial Avenue
Teterboro, New Jersey 07608

New York
Melville Park Building
435 Broad Hollow Road
Melville, New York 11746

Ohio
5241 Wilson Mills Road
Suite 27
Richmond Heights, Ohio 44143

Room 214, Terminal Building
Dayton Municipal Airport
Valdalia, Ohio 45377

Oklahoma
Room 112, General Aviation Terminal
Tulsa International Airport
Tulsa, Oklahoma 74115

Pennsylvania
Federal Building, Box 640
228 Walnut Street
Harrisburg, Pennsylvania 17108

Texas
Room 219, Terminal Building
P.O. Box 2531
Greater Southwest Airport Station
Fort Worth, Texas 76125

Room 203, Executive Aircraft Terminal
1115 Paul Wilkens Road
International Airport
San Antonio, Texas 78216

Washington
Room 210 (2nd Floor)
Terminal building
Boeing Field International
Seattle, Washington 98108

APPENDIX 2. GENERAL AVIATION DISTRICT OFFICES & FLIGHT STANDARDS DISTRICT OFFICES

GENERAL AVIATION DISTRICT OFFICES

Alabama
Municipal Airport
6500 43rd Ave., North
Birmingham, Al. 35206

Alaska
13th and Orca Sts.,
Anchorage, Ak. 99501

Arkansas
Terminal Annex Building
Adams Field
Little Rock, Ar. 72202

California
FAA Bldg., Suite 1-8
Fresno Air Terminal
Fresno, Ca. 93727

Suite 3, Municipal Airport
3200 Airport Ave.
Santa Monica, Ca. 90405

Administration Building Annex
International Airport
Ontario, Ca. 91761

Sacramento Municipal Airport
Sacramento, Ca. 95822

1387 Airport Boulevard
San Jose, Ca. 95110

Colorado
FAA Building
Jefferson County Airport
Broomfield, Co. 80020

Florida
P.O. Box 38665
Jacksonville, Fl. 32202

Building 121, Opa Locka Arpt.
P.O. Box 365
Opa Locka, Fl. 33054

St. Petersburg-Clearwater Arpt.
St. Petersburg, Fl. 33732

Georgia
FAA Bldg., Rm. 200
Fulton County Airport
3999 Gordon Rd., SW.
Atlanta, Ga. 30336

Idaho
3113 Airport Way
Boise, Id. 83705

Illinois
DuPage County Airport
P.O. Box H
West Chicago, Il. 60185

Rm. 201, Facilities Building
Capital Airport
Springfield, Il. 67205

Indiana
St. Joseph County Airport
South Bend, In. 46628

Iowa
Municipal Airport
204 Administration Bldg.
Des Moines, Io. 50321

Kansas
2nd Floor, Administration Bldg.
Fairfax Airport
Kansas City, Ks. 66115

Flight Standards Building
Municipal Airport
Wichita, Ks. 67209

Kentucky
Administration Building
Bowman Field
Louisville, Ky. 40205

Louisiana
Rm. 227, Admin Bldg. 1/
New Orleans Lakefront Airport
New Orleans, La. 70126

Rm. 202, Terminal Bldg.
Downtown Airport
Shreveport, La. 71107

1/Satellite office: Lafayette Airport, Lafayette, La. 70501

General Aviation District Offices (cont'd)

Maine
1001 Westbrook St.
Portland, Me. 14102

Maryland
Friendship International Arpt.
Baltimore, Md. 21240

Massachusetts
Municipal Airport
Norwood, Ma. 02062

1st Floor Terminal Building
Barnes-Westfield Municipal Arpt.
P.O. Box 544
Westfield, Ma. 01085

Michigan
Kent County Airport
5500 44th St., SE
Grand Rapids, Mi. 49508

Minnesota
Wold-Chamberlain Airport
6301 34th Ave., So.
Minneapolis, Mn. 55450

Mississippi
P.O. Box 5855, Pearl Station
Jackson, Ms. 39208

Montana
Rm. 216, Admin. Bldg.
Billings-Logan Field
Billings, Mt. 59101

Rm. 3, FAA Building
Helena Airport
P.O. Box 1167
Helena, Mt. 59601

Nebraska
General Aviation Building
Lincoln Municipal Airport
Lincoln, Ne. 68524

Nevada
2601 East Plumb Lane
Reno, Nv. 89502

5100-C South Haven
Las Vegas, Nv. 89119

New Jersey
Teterboro Air Terminal
510 Industrial Avenue
Teterboro, N.J. 07608

New Mexico
Albuquerque Museum Building
P.O. Box 9045, Sunport Station
Albuquerque, N.M. 87119

New York
Albany County Airport
Albany, N.Y. 12211

Building 53, Republic Airport
Farmingdale, N.Y. 11735

Hangar 3, Rochester-Monroe Co. Arpt.
Rochester, N.Y. 14624

North Carolina
FAA Bldg., Municipal Airport
Charlotte, N.C. 28208

Rm. 204, Admin. Building
Raleigh-Durham Arpt.
P.O. Box 1858
Raleigh, N.C. 27602

North Dakota
Rm. 216, Admin. Building
Hector Field, P.O. Box 2128
Fargo, N.D. 58102

Ohio
Hangar 5, Lunken Airport
Cincinnati, Oh. 45226

Rm. 215, New Terminal Building
Port Columbus Airport
4393 E. 17th Ave.
Columbus, Oh. 43219

Oklahoma
FAA Bldg., Wiley Post Arpt.
Bethany, Ok. 73008

General Aviation Terminal
Rm. 110, Tulsa Int'l Airport
Tulsa, Ok. 74115

General Aviation District Offices (cont'd)

Oregon
3410 NE Marine Drive
Portland, Or. 97218

Route 1, Box 717
Eugene, Or. 97402

Pennsylvania
Allentown-Bethlehem-Easton Arpt.
Allentown, Pa. 18103

Rm. 201, Admin. Bldg.
Capital City Airport
New Cumberland, Pa. 17070

Allegheny County Airport
West Mifflin, Pa. 15122

Administration Building
North Philadelphia Airport
Philadelphia, Pa. 19114

South Carolina
Metropolitan Airport, Box 200
West Columbia, S.C. 29169

South Dakota
Municipal Airport, RFD 2, Box 633B
Rapid City, S.D. 57701

Tennessee
2488 Winchester
P.O. Box 30050
Memphis, Tn. 38130

303 Doyle Terminal
Metropolitan Airport
Nashville, Tn. 37217

Texas
Redbird Airport
Dallas, Tx. 75332

Rm. 202, FAA Building
6795 Convair Rd.
El Paso, Tx. 79925

Rm. 201, Admin. Bldg.
Meacham Field
Fort Worth, Tx. 76106

P.O. Box 194Z
Executive Air Terminal 2/
Lubbock, Tx. 79417

8345 Telephone Road
Houston, Tx. 77017

1115 Paul Wilkins Rd., Rm. 201 3/
San Antonio, Tx. 78216

Utah
116 North 23rd West, Rm. 100
Salt Lake City, Ut. 84116

Virginia
Byrd Field
Sandston, Va. 23150

Washington
Rm. 104, FAA Building
Boeing Field
Seattle, Wa. 98108

5629 E. Rutter Ave.
Spokane, Wa. 99206

West Virginia
Kanawha County Airport
Charleston, W.V. 25311

Wisconsin
General Mitchell Field
Milwaukee, Wi. 53207

Wyoming
1187 Fuller St., Casper Air Terminal
Casper, Wy. 82601

2/ Satellite Office: Rm. 213, Term. Bldg., Midland-Odessa Reg. Air Term., Midland, Tx. 79701

3/ Satellite Office: Rte. 2, Box 903, Bledsoe Hangar 3, Corpus Christi, Tx. 78408

FLIGHT STANDARDS DISTRICT OFFICES

Alaska
5640 Airport Way
Fairbanks, Ak. 99701

R.R. 5, Box 5115
Juneau, Ak. 99801

Arizona
2800 Sky Harbor Blvd.
Sky Harbor Airport, Rm. 112
Phoenix, Az. 85034

California
Municipal Airport
2815 E. Spring St.
Long Beach, Ca. 90806

Box 2397, Oakland Int'l Airport
Oakland, Ca. 94614

3750 John J. Montgomery Dr.
San Diego, Ca. 93123

7120 Havenhurst Ave.
Van Nuys, Ca. 91406

District of Columbia
West Building
Washington National Airport
Washington, D.C. 2000

Hawaii
Air Service Corp. Building
218 Lagoon Drive
Honolulu Int'l Airport
Honolulu, Ha. 96820

Indiana
FAA Bldg. 1, Mun. Arpt.
P.O. Box 41525
Indianapolis, In. 46241

Michigan
Flight Standards Building
Willow Run Airport
Ypsilanti, Mi. 48197

Missouri
North Terminal Building
Municipal Airport
Kansas City, Mo. 64116

Ohio
Cleveland-Hopkins Int'l Airport
Cleveland, Oh. 44135

Puerto Rico
RFD 1, Box 29A
Loiza Station
San Juan, P.R. 00914

APPENDIX 4. STATE AERONAUTICS DEPARTMENTS AND COMMISSIONS

Alabama Department of Aeronautics
State Highway Bldg. - 11 S. Union St.
Montgomery, Alabama 36104
Phone: (205) 269-6494

Division of Aviation
Department of Public Works
4510 International Airport Rd.
Anchorage, Alaska 99502
Phone: (907) 274-1544

Arizona Department of Aeronautics
3000 Sky Harbor Boulevard
Phoenix, Arizona 85034
Phone: (602) 275-7531

Arkansas Division of Aeronautics
Suite 514 - 1515 W. 7th St.
Little Rock, Arkansas 72201
Phone: (501) 371-1471

California Department of Aeronautics
Sacramento Executive Airport
Sacramento, California 95822
Phone: (916) 455-2582

Deputy Transportation Commissioner
Bureau of Aeronautics - DOT
24 Wolcott Hill Rd. - P.O. Drawer A
Wethersfield, Connecticut 06109
Phone: (203) 566-4594

Division of Transportation
Dept. of Highways & Transportation
P.O. Box 778
Dover, Delaware 19901
Phone: (302) 678-4307

Bureau of Aviation
Division of Mass Transit Operations
Department of Transportation
Tallahassee, Florida 32304
Phone: (904) 488-3251

Office of Aviation Development
Georgia Dept. of Transportation
No. 2 Capitol Square, SW.
Atlanta, Georgia 30334
Phone: (404) 656-5712

Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813
Phone: (808) 548-3205

Idaho Department of Aeronautics
3103 Airport Way
Boise, Idaho 83705
Phone: (208) 384-3183

Illinois Department of Aeronautics
Capital Airport - Box 218
Springfield, Illinois 63705
Phone: (217) 525-2888

Aeronautics Commission of Indiana
100 North Senate Avenue
Indianapolis, Indiana 46204
Phone: (317) 633-6545

Iowa Aeronautics Commission
State House
Des Moines, Iowa 50319
Phone: (515) 285-1551

Aviation Division, Dept. of Economic Development
State Office Building
Topeka, Kansas 66612
Phone: (913) 296-3481

Kentucky Department of Aeronautics
Sixth Floor - Capital Plaza
Frankfort, Kentucky 40601
Phone: (502) 564-4480

State Aviation Division
Department of Public Works
P.O. Box 44155 - Capitol Station
Baton Rouge, Louisiana 70804
Phone: (504) 389-5549

Maine Department of Transportation
State Office Building
Augusta, Maine 04330
Phone: (207) 289-3185

State Aviation Administration
Department of Transportation
P.O. Box 8755
Friendship Int'l Airport, Maryland 21240
Phone: (301) 768-9520

Massachusetts Aeronautics Commission
Boxton-Logan Airport
East Boston, Massachusetts 02128
Phone: (617) 727-5353

State Aeronautics Departments and Commissions (cont'd)

Michigan Aeronautics Commission
Capital City Airport
Lansing, Michigan 48906
Phone: (517) 489-2421

Department of Aeronautics
Administration Building
Downtown Airport
St. Paul, Minnesota 55107
Phone: (612) 222-4741

Mississippi Aeronautics Commission
P.O. Box 5
Jackson, Mississippi 39205
Phone: (601) 354-7494/354-7495

Aviation Section, Division of
Commerce & Industrial Development
8th Floor - Jefferson Building
Jefferson City, Missouri 65101
Phone: (314) 751-3674

Division of Aeronautics
Dept. of Intergovernmental Relations
Capitol Post Office
Helena, Montana 59601
Phone: (406) 449-2506

Nebraska Department of Aeronautics
P.O. Box 32088
Lincoln, Nebraska 68501
Phone: (402) 471-2371

New Hampshire Aeronautics Commission
Municipal Airport
Concord, New Hampshire 03301
Phone: (603) 271-2551

Division of Aeronautics
Department of Transportation
1035 Parkway Avenue
Trenton, New Jersey 08625
Phone: (609) 292-3020

New Mexico Aviation Department
P.O. Box 579
Santa Fe, New Mexico 87501
Phone: (505) 827-2861

Aviation Section
Department of Transportation
1220 Washington Avenue
Albany, New York 12226
Phone: (518) 457-2820

Office of Aeronautics
Department of Transportation
Raleigh, North Carolina 27602
Phone: (919) 829-4889

North Dakota Aeronautics Commission
Box U -Bismarck Airport
Bismarck, North Dakota 58501
Phone: (701) 224-2748

Ohio Division of Aviation
2829 W. Granville Rd.
Worthington, Ohio 43085
Phone: (614) 889-2533

Oklahoma Aeronautics Commission
424 United Founders Tower Bldg.
Oklahoma City, Oklahoma 73112
Phone: (405) 521-2377

Oregon State Board of Aeronautics
3040 - 25th St., SE.
Salem, Oregon 97310
Phone: (503) 378-4880

Bureau of Aviation
Department of Transportation
Capital City Airport
New Cumberland, Pennsylvania 17070
Phone: (717) 787-8754

Puerto Rico Ports Authority
G.P.O. Box 2829
San Juan, Puerto Rico 00936
Phone: (809) 723-2260

Assistant Director of Transportation
Division of Airports
Department of Transportation
Theodore Francis Green State Airport
Warwick, Rhode Island 02886
Phone: (401) 737-5000

South Carolina Aeronautics Commission
Columbia Metropolitan Airport, Box 88
West Columbia, South Carolina 29169
Phone: (803) 758-2766

South Dakota Aeronautics Commission
State Office Building #1
Pierre, South Dakota 57501
Phone: (605) 224-3575

State Aeronautics Departments and Commissions (cont'd)

Development and Operations
Bureau of Aeronautics
Department of Transportation
P.O. Box 17326, Glenview Station
Nashville, Tennessee 37217
Phone: (615) 741-3208

Texas Aeronautics Commission
111 East 17th Street
Austin, Texas 78711
Phone (512) 475-4768

Utah Division of Aeronautics
135 North 23rd West
Salt Lake City, Utah 84116
Phone: (801) 328-2066

Vermont Board of Aeronautics
State Administrative Building
Monpelier, Vermont 05602
Phone: (802) 828-2442

Division of Aeronautics
State Corporation Commission
4508 So. Laburnum Ave., P.O. Box 7716
Richmond, Virginia 23231
Phone: (703) 770-3685

Washington State Aeronautics Commission
8600 Perimeter Road - Boeing Field
Seattle, Washington 98108
Phone: (206) 764-4131

West Virginia Aeronautics Commission
Kanawha Airport
Charleston, West Virginia 25311
Phone: (304) 348-2289

Division of Aeronautics
Department of Transportation
951 Hill Farms State Office Building
Madison, Wisconsin 53702
Phone: (608) 266-3351

Wyoming Aeronautics Commission
200 East 8th Avenue
Cheyenne, Wyoming 82001
Phone: (307) 777-7481